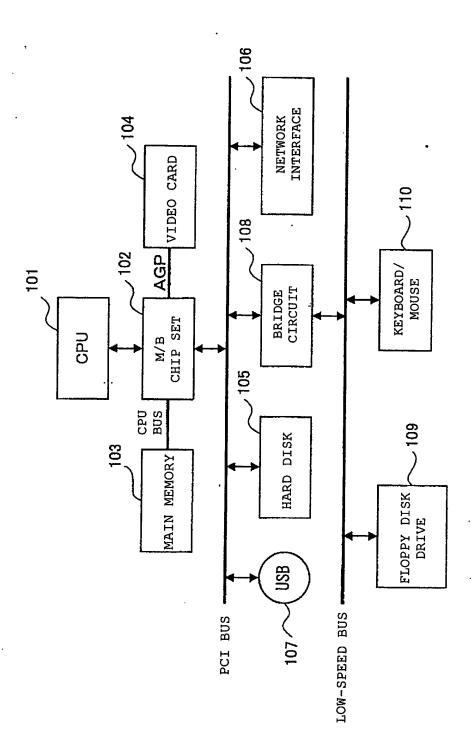
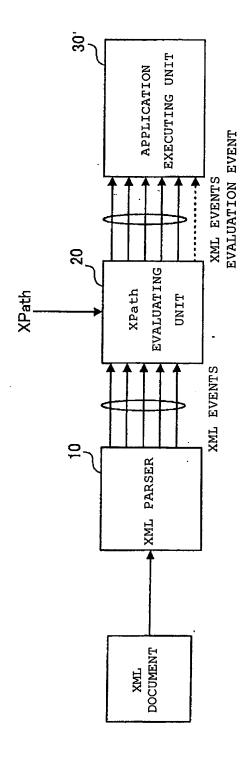
JP9-2003-0035-JP1 1/30 FIG.1



JP9-2003-0035-JP1 2/30 FIG.2



JP9-2003-0035-JP1 3/30 FIG.3

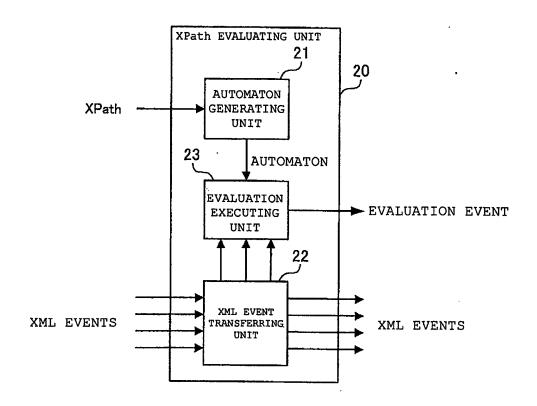


FIG.4

XPath

STEP 1/.../STEP K/.../STEP N

AUTOMATON $O \longrightarrow I \longrightarrow K \longrightarrow N$

JP9-2003-0035-JP1 4/30 FIG.5

(A)

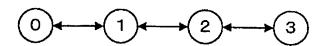
STEP 1

STEP 2

STEP 3

/child::document/child::chapter/child::section

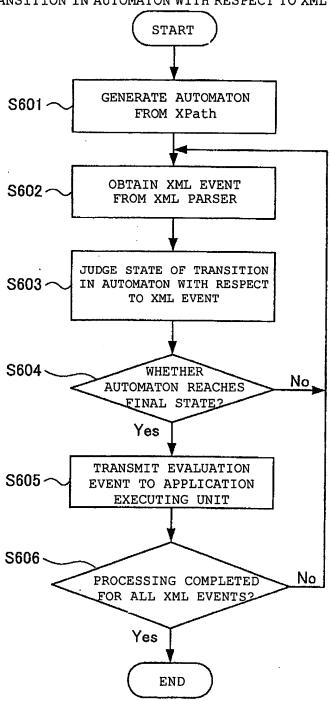
(B)



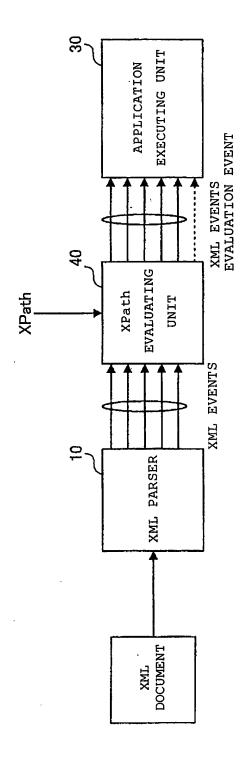
(C)

JP9-2003-0035-JP1 5/30 FIG.6

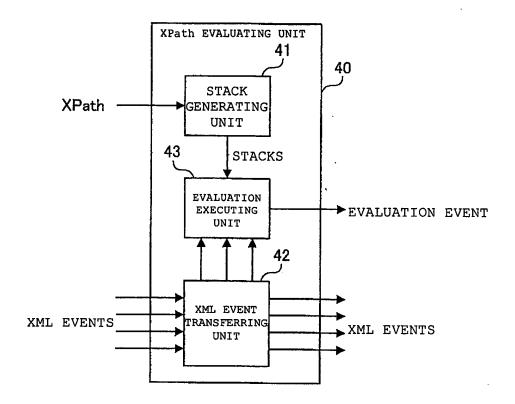
JUDGE STATE OF TRANSITION IN AUTOMATON WITH RESPECT TO XML EVENT



JP9-2003-0035-JP1 6/30 FIG.7

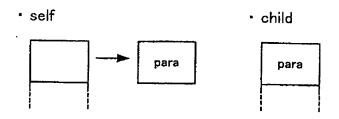


JP9-2003-0035-JP1 7/30 FIG.8

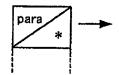


JP9-2003-0035-JP1 8/30

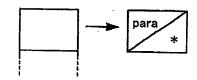
FIG.9



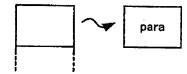
descendant



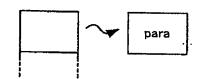
· descendant-or-self



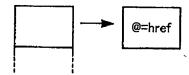
following



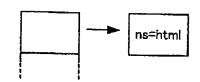
following-sibling



attibute

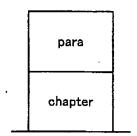


namespace

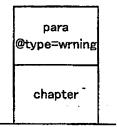


JP9-2003-0035-JP1 9/30 FIG.10

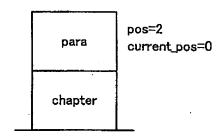
(1) chapter/para



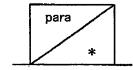
(2) chapter/para[@type="warning"]



(3) chapter/para[2]



(4).//para



JP9-2003-0035-JP1 10/30 FIG.11

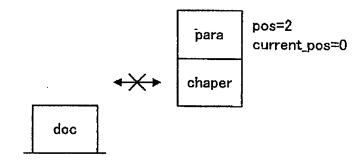
JP9-2003-0035-JP1 11/30 FIG.12

(A) startDocument

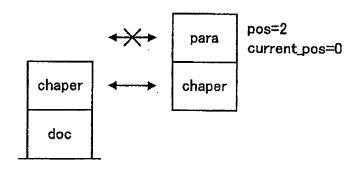
XML EVENT STRING STACK

STACK FOR XPath

(B) startElement; doc

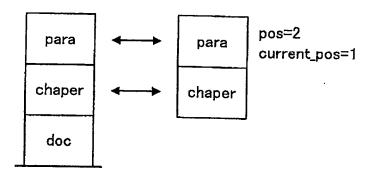


(C) startElement: chapter

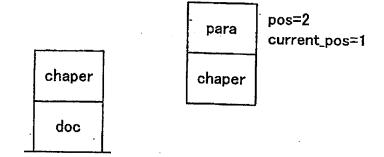


JP9-2003-0035-JP1 12/30 FIG.13

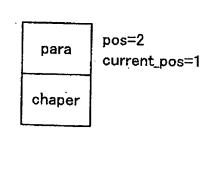
(A) startElement: para



(B) endElement: para



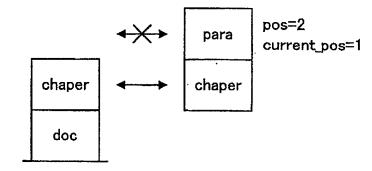
(C) endElement: chapter



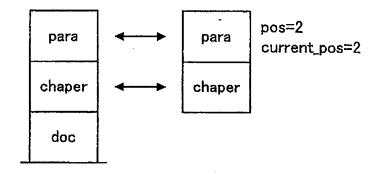
doc

JP9-2003-0035-JP1 13/30 FIG.14

(A) startElement: chapter

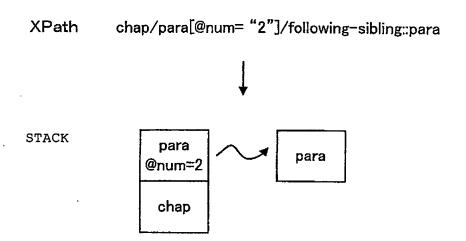


(B) startElement: para



JP9-2003-0035-JP1 14/30 FIG.15

FIG.16



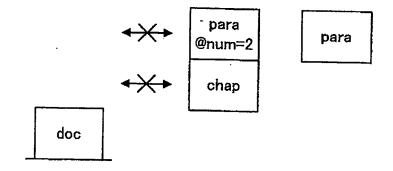
JP9-2003-0035-JP1 15/30 FIG.17

(A) startDocument

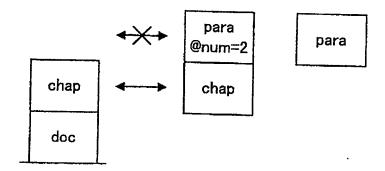
XML EVENT STRING STACK

STACK FOR XPath

(B) startElement: doc

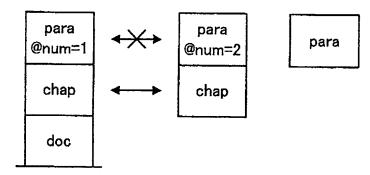


(C) startElement: chapter

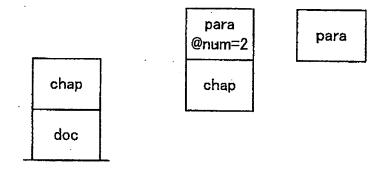


JP9-2003-0035-JP1 16/30 FIG.18

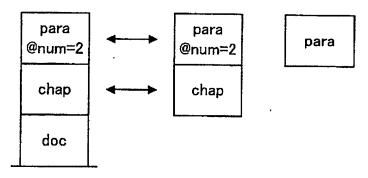
(A) startElement: para, @num=1



(B) endElement: para

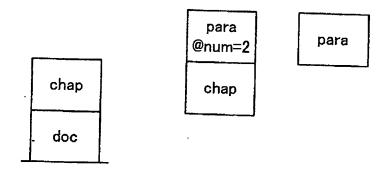


(C) startElement: para, @num=2

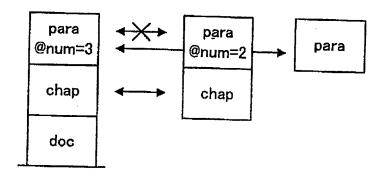


JP9-2003-0035-JP1 17/30 FIG.19

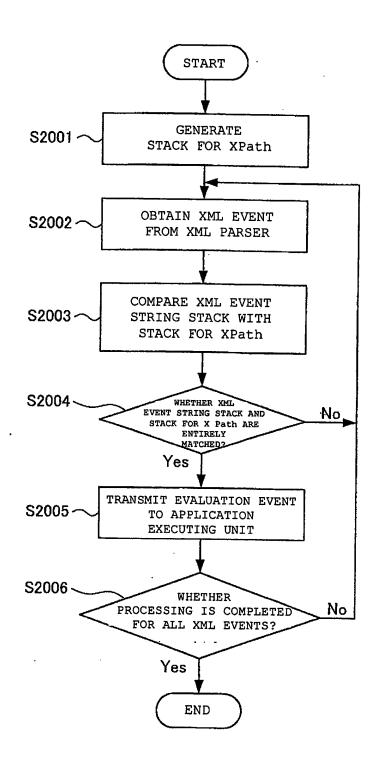
(A) endElement: para



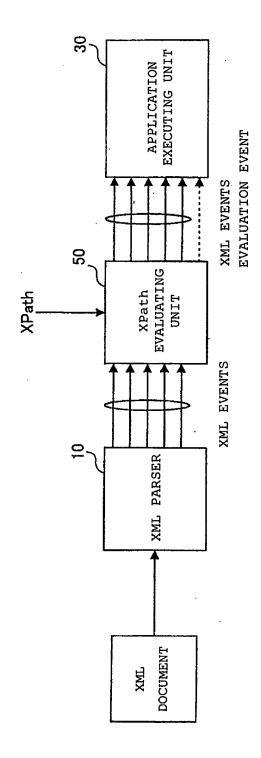
(B) startElement: para, @num=3



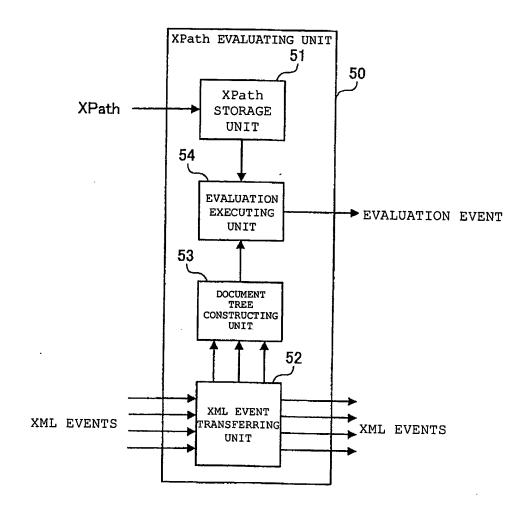
JP9-2003-0035-JP1 18/30 FIG.20



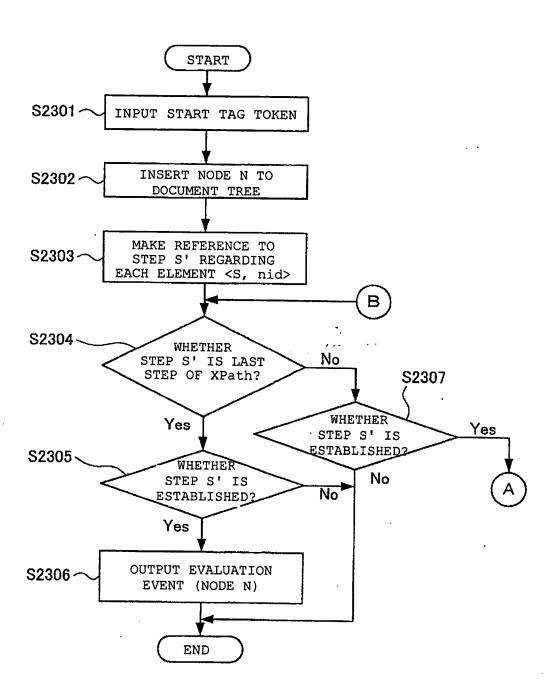
JP9-2003-0035-JP1 19/30 FIG.21



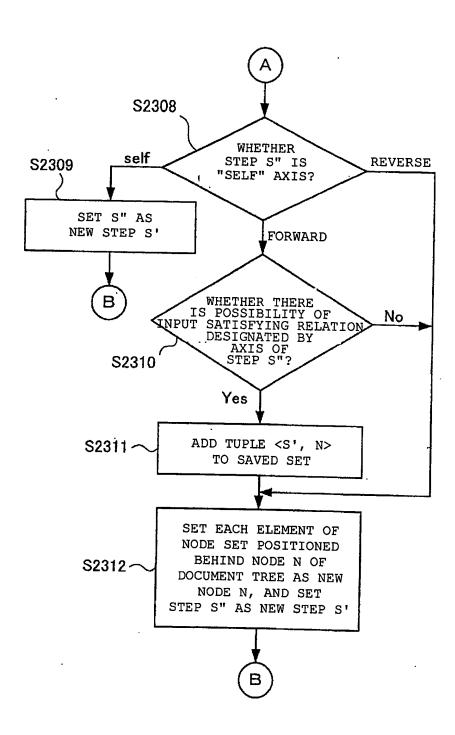
JP9-2003-0035-JP1 20/30 FIG.22



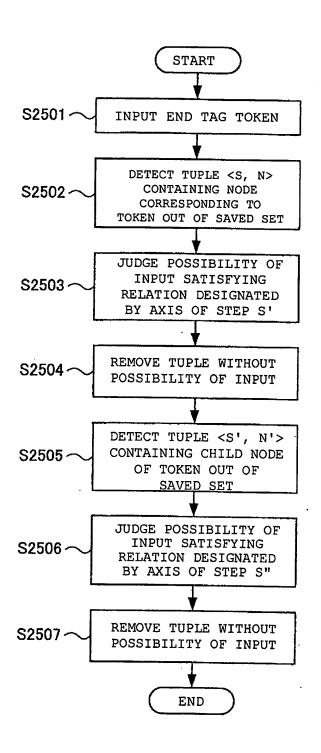
JP9-2003-0035-JP1 21/30 FIG.23



JP9-2003-0035-JP1 22/30 FIG.24

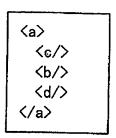


JP9-2003-0035-JP1 23/30 FIG.25



JP9-2003-0035-JP1 24/30 FIG.26

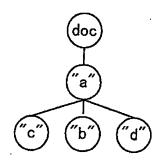
XML DOCUMENT



SAX EVENT STRINGS

startDocument startElement:"a" startElement:"c" endElement:"c" startElement:"b" endElement:"d" endElement:"d" endElement:"a" endDocument

DOCUMENT TREE



JP9-2003-0035-JP1 25/30 FIG.27

1 2 3 4 "/a/b/preceding-sibling::c/following-sibling::d

startDocument



{<0, doc>}

SAX EVENT STRING DOCUMENT TREE SAVED SET

FIG.28

1 2 3 4 "/a/b/preceding-sibling::c/following-sibling::d

startDocument
startElement:"a"



{<0, doc>, <1, "a">}

SAX EVENT STRING DOCUMENT TREE SAVED SET

JP9-2003-0035-JP1 26/30 FIG.29

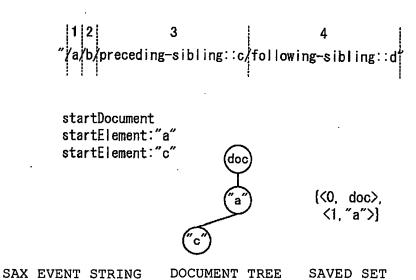
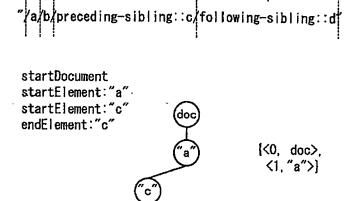


FIG.30



SAX EVENT STRING DOCUMENT TREE SAVED SET

JP9-2003-0035-JP1 27/30 FIG.31

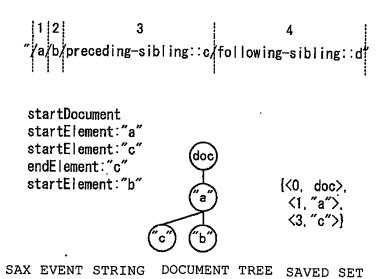
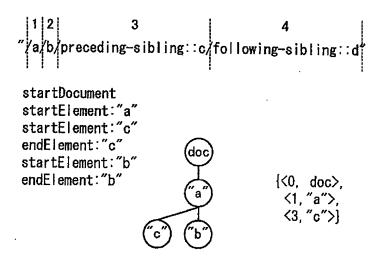


FIG. 32



SAX EVENT STRING DOCUMENT TREE SAVED SET

JP9-2003-0035-JP1 28/30 FIG.33

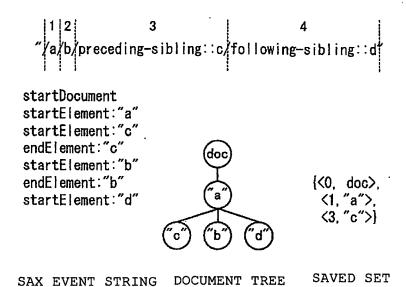
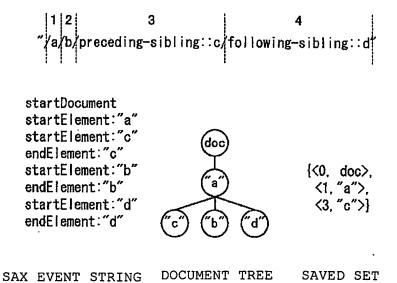
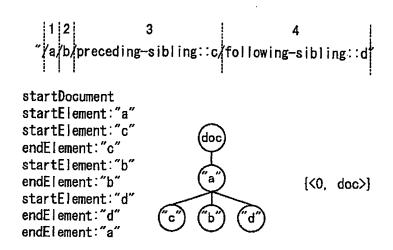


FIG.34



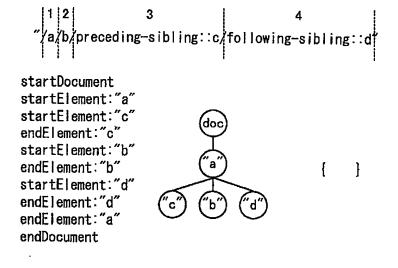
JP9-2003-0035-JP1 29/30 FIG.35



SAX EVENT STRING DO

DOCUMENT TREE SAVED SET

FIG.36



SAX EVENT STRING

DOCUMENT TREE

SAVED SET

JP9-2003-0035-JP1 30/30 FIG.37

